lighter dot. Hindwing nearly white (not gray as in *S. gremius*), the borders dark, a conspicuous black cell-spot, and a row of black discal spots. six in one specimen, four in the other.

The absence of hyaline spots distinguishes it from all others.

Two males, Sumba coast.

Kerana Group.

130. Plesioneura restricta, Moore.

Sumba, Sambawa, mountains. My Sumbanese *Hesperiadæ* hav suffered more than any other family, and I have been compelled to omit a number of species, a *Halpe*, two *Parnaras*, a *Parata*, etc.

EXPLANATION OF PLATE II.

Fig. 1. *Euplœa elwesii*, n. sp. ♀.
2. *Euplœa lewa*, n. sp.
3. *Euplœa palmedo*, n. sp.
4. *Danais litoralis*, n. sp.
5. *Danais orientis*, n sp.
6. *Radena oberthurii*, n. sp.
7. *Radena kambera*, n. sp.
8. *Nacaduba gaura*, n. sp., × 2.
9. *Nacaduba laura*, n. sp. ♀, × 2.
10. *Lampides anops*, n. sp.
11. *Lampides masu*, n. sp.
12. *Huphina julia*, n. sp.

VI.—*Natural History Notes from H. M. Indian Marine Survey Steamer 'Investigator,' Commander* R. F. Hoskyn, R. N., *commanding.* No. 24. *List of Deep-sea* Holothurians *collected during seasons* 1887 *to* 1891, *with descriptions of new species.—By* Dr. J. H. Tull Walsh. *Communicated by the* Superintendent of the Indian Museum.

[Received 6th April, 1891;—Read 7th May, 1891.]

Order ELASIPODA, Théel, Chall. Rep. vol. iv, Hol., p. 9.

Family **Elpididæ**, Théel, l. c., p. 10.

1. Peniagone wyvillii, Théel, Chall. Rep. vol. iv, Hol., p. 42.

One specimen.

Station 118, 15th December, 1890, Bay of Bengal, lat. 12° 20′ N., long. 85° 8′ E., 1803 fathoms, globigerina ooze, bot. temp. 35° Fahr. (*Alcock*).

Family **Deimatidæ**.

2. Oneirophanta mutabilis, Théel, l. c., p. 62.

One specimen.

April 12th to 13th, 1888, Andaman Sea, N. Sentinel Island bearing N. 15°, W. 18 miles, 250 fathoms (*Wood-Mason*).

3. Deima validum, Théel, l. c., p. 68.

"Transparent light orange-red" (*Alcock*).

Two specimens.

April 16th, 1888; Bay of Bengal lat. 11° 15′ N., long. 91° 16′ E., 1840 fathoms, globigerina ooze (*Wood-Mason*).

A fine specimen; length 130 mm.; length of lateral processes 55 mm.

Station 117, Bay of Bengal, lat. 11° 58′ N., long. 88° 52′ 17″ E., 1748 fathoms, globigerina ooze with pieces of pumice, bot. temp. 35·3° (*Alcock*).

4. Deima fastosum, Théel, l. c., p. 71.

Two specimens.

Station 118 (*Alcock*).

April 20th, 1888, Bay of Bengal, lat. 6° 18′ N., long. 90° 40′ E., 1520 fathoms (*Wood-Mason*).

5. Orphnurgus asper, Théel, l. c., p. 82, var. glaber, nov.

Length 150 mm. Body smooth and leathery; skin thin and somewhat transparent; colour (in spirit), body greyish white, feet and processes yellowish-white. Tentacles 20, long, extremities brownish and dendritic. Ventral feet 24 on each side, longer and larger near the centre of the body than at the extremities; longest 20-25 mm. Lateral processes generally longer than the pedicles, longest 30 mm. Two rows of processes on each dorsal ambulacrum; these vary considerably in size and short and long ones seem to alternate. Mouth slightly ventral; anus terminal and patulous. Calcareous bodies, spinous rods or smooth rods with branched extremities. Polian vesicle single, 40 mm., wider in the middle than at the extremities.

Colour in the fresh state "salmon-pink" (*Alcock*).

One specimen.

Station 112, 7th November, 1890, Bay of Bengal, lat. 13° 47′ 30″ N., long. 92° 36′ E., 561 fathoms, grey mud, bot. temp. 44·9° (*Alcock*).

6. Pannychia wood-masoni, n. sp.

Length 300 mm. Body long, flat and of equal width throughout; skin calcareous but flexible; colour yellowish-white (in spirit). Tentacles 20, round, with stumpy digits; mouth ventral; anus terminal and without teeth. The middle ambulacrum of the trivium bears a double row of feet; outside these the skin is thrown into longitudinal and transverse folds and ridges; the skin on the dorsum is also ridged.

The lateral ambulacra possess a single row of feet much longer than those on the middle ambulacrum. Just above this row of feet there is a row of long, pointed processes; these average 15 mm. in length. The dorsal ambulacra are furnished with a double row of processes; these are shorter than the lateral ones. One polian vesicle; one stone canal; one bundle of genital tubes which are branched and furnished with irregular dilatations. Calcareous ring small; muscles poorly developed relatively to the size of the animal.

The calcareous bodies consist of large, round, many-holed plates, the centre holes being fairly large, the marginal ones small. Besides these plates, a few branched spicules are present.

This species is very closely allied to *P. moseleyi*, Théel.

Numerous specimens.

January 2nd, 1888, off Port Blair, 271 fathoms, bottom green mud (*Giles*).

April 12th, 1888, 7½ miles E. of N. Cinque Island, Andaman Sea, 490 fathoms, bottom green mud (*Wood-Mason*).

Station 115, December 9th, 1890, Andaman Sea, lat. 11° 31′ 40″ N., long. 92° 46′ 40″ E., off Dyer Point and N. of Cinque island, 188—220 fathoms, green mud, bot. temp. 56° (*Alcock*).

Amphigymnas, nov. gen.

Body ovoid with narrow tail-like extremities; soft and appears to have been surrounded by a jelly-like material when fresh. Feet very numerous over the whole of the trivium and placed more or less irregularly. Lateral margins with two or three rows of long processes. Back covered with processes except near the mouth and anus where the body tapers and where the dorsal surface is naked; mouth terminal, small; tentacles 15, very small and retracted; anus terminal, small. Calcareous bodies moderate sized, irregularly rounded, many-holed plates somewhat like those of *Pannychia*. Calcareous ring of 5 small pieces loosely connected.

7. Amphigymnas multipes, n. sp.

Length 80 mm., width near middle of body 22 mm.; at oral and anal end about 9 mm.

Colour (in spirit) pale purple; the long lateral processes measure about 15 mm., those on the back are shorter.

One specimen.

Station 115, December 9th, 1890, Andaman Sea, lat. 11° 31′ 40″ N., long. 92° 46′ 40″ E., off Dyer Point and N. of Cinque island, 188—220 fathoms, green mud, bot. temp. 56° (*Alcock*).

8. Lætmogene spongiosa, Théel, l. c., p. 80.
Crydora spongiosa, Théel, Prelim. Rep. Hol., p. 9.

One specimen.

April 17th, 1888, Bay of Bengal, lat. 10° N., long. 91° 7′ E., 1924 fathoms (*Wood-Mason*).

Family **Psychropotidæ**.

9. Euphronides depressa, Théel, Chall. Rep. vol. iv, Hol., p. 93.

Two specimens.

Station 118, December 15th, 1890, Bay of Bengal, lat. 12° 20′ N., long. 85° 8′ E., 1803 fathoms, globigerina ooze with pieces of pumice, bot. temp 35° (*Alcock*).

10. Benthodytes papillifera, Théel, l. c., p. 102.

" Colour purple, tentacles violet black " (*Alcock*).

Two specimens 80 mm. and 68 mm. The fringe is damaged and the dorsal papillæ are not very apparent, but there is, I think, no doubt that these specimens belong to Théel's species.

Station 117 (*Alcock*).

11. Benthodytes sanguinolenta, Théel, l. c., p. 104.

Four specimens; the row of transverse papillæ below the mouth cannot be made out.

Station 118 (*Alcock*).

12. Benthodytes ovalis, n. sp.

Length 65 mm.; breadth 35 mm. including fringe. Body oval, flat, about twice as long as broad and of a deep purple colour throughout. A double row of feet on the middle ambulacrum of the trivium and no transverse line of feet below the mouth; lateral ambulacra with a single row of feet. On the dorsal surface there are three processes on each ambulacrum; the anterior ones are 15 mm. long and not retractile (?); the posterior one in each row is much smaller. Mouth ventral; anus terminal. Tentacles retracted. Calcareous bodies small 3-armed spicules with the end of each arm clubbed and perforated.

One specimen.

April 12th, 1888, 7½ miles E. of N. Cinque island, Andaman Sea, 490 fathoms, bottom green mud (*Wood-Mason*).

13. Benthodytes gelatinosa, n. sp.

Before describing the specimens as they appear in spirit it will be better to quote the graphic account of the fresh creature given by Dr. Giles, Ad. Rep. Marine Survey of India, 1877-88, p. 15 :—

"I must first notice a very peculiar holothurian, several specimens of which were included in the catch..... When fresh, the animal consists of a tough, muscular sac of a yellowish pink colour, enclosed in a thick coating of perfectly transparent, deep violet jelly. Though not sticky or glairy, this jelly is of so delicate a consistence that it was almost impossible to clean the mud from the animal without stripping off the coating. After a short exposure to the action of spirit, this jelly, previously fully 15 mm. thick, shrinks to a thickness of less than 5 mm. and becomes comparatively dense. The violet colouring matter dissolves out into the spirit and exhibits a curious affinity for vegetable tissues, deeply staining a paper label which had been placed within the jar. Its attraction for animal tissues though less marked was still very noticeable, the nuclei shewing it best, so that, on microscopical examination, the animal was found to have become stained in a solution of its own pigment. After hardening in spirit it is sufficiently evident that this jelly-like coating cannot be considered as a secretion, but as an integral part of the tissues of the body wall, as it consists of a plexus of stellate and spindle-shaped cells, enclosing within their meshes many nuclei-form bodies and much hyaline connective substance. The body wall contains but few calcareous bodies. Those present consist of a circular plate, having articulated to it a fan-shaped body so shaped that the whole apparatus is not unlike the badge of a grenadier's cap. As far as could be made out, these bodies appertain to the jelly-like layer and not to the dense inner portion of the body wall, which latter appears to be purely muscular. When laid open it is seen that the lungs are very complex and racemose, and that the ambulacral tubes which are very small and straight, give off a number of minute branches to the pedicels. The polian vesicle is of moderate size and simple. It appears to belong to, or be near, the genus *Benthodytes* of the *Elasipod* family *Psychropotidæ*, and is doubtless new as it is identifiable with neither of the species in the Challenger monograph. In all probability, many of its allies must share with this species the peculiarity of a jelly-like coating but no mention of any such appearance is made in the above report."

Length of specimens 100 to 140 mm.—Body soft; extremities and ventral feet are still of a beautiful purple, the body generally is a dark lavender colour (in spirit). The anterior end of the body has a wide lappet-like fringe furnished with papillæ and the border is continued down each side of the flatly cylindrical body and expanded in a less pronounced form as an anal lappet. Along the lateral border there are numerous feet in a single row. Mouth small and ventral; anus large, patulous and somewhat dorsal, situated just above the anal lappet.

Tentacles 15, very small and of a deep purple colour. One, or two, fairly large Polian vesicles; calcareous ring very minute, a double row of sucker feet on the middle ambulacrum of the trivium; these are more numerous and closer together near the anal end while they are entirely absent from the surface just below the mouth. A single row of fairly long, slender retractile papillæ are seen on each dorsal ambulacrum. Two small bundles of genital tubes. The longitudinal muscles are well-developed, broad, orange-yellow and visible through the skin—only a few calcareous spicules and granules were found in the muscular substance of the body.

Many specimens.

January 2nd, 1888, Andaman Sea off Port Blair, 271 fathoms, (*Giles*), two specimens.

April 12th, 1888, Andaman Sea $7\frac{1}{2}$ miles E. of N. Cinque island, 490 fathoms, (*Wood-Mason*). Two specimens.

Station 115, December 9th, 1890, Andaman Sea, lat. 11° 31′ 40″ N., long. 92° 46′ 40″ E., off Dyer Point and N. of Cinque island, 188—220 fathoms, green mud, bot. temp. 56° (*Alcock*). Eleven specimens.

APODOGASTER, nov. gen.

Body long flat and worm-like; slightly wider anteriorly than posteriorly. Down both sides there is a fringe, like that of *Benthodytes*, in which are seen the long tubes of numerous sucker feet. The odd ambulacrum is naked while the lateral ambulacra have one row of small sucker feet situated just below the lateral fringe. A single row of papillæ on each dorsal ambulacrum. Tentacles 15, mouth ventral. Anus terminal.

Calcareous bodies small granules and small wheel-like plates.

14. APODOGASTER ALCOCKI, n. sp.

Length 80 mm.

"Light pink" (*Alcock*).

One specimen.

Station 112, November 7th, 1890, Bay of Bengal, lat. 13° 47′ 30″ N., long. 92° 36′ E., 561 fathoms, grey mud, bot. temp. 44·9° (*Alcock*).

Order APODA.

Sub-order PNEUMONOPHORA.

Family Molpadidæ.

15. ANKYRODERMA DANIELSSENII, Théel, Chall. Rep. vol. xiv, Hol. p. 39.

One specimen.

April 11th, 1888, 7 miles S. E. by S. of Ross Island, Andaman Sea; 265 fathoms, green mud (*Wood-Mason*).

16. A. MARENZELLERI, Théel, l. c., p. 41.

One specimen.

Station 55, 13th—14th April, 1889, Bay of Bengal, 30 miles W. of Middle Andaman Island (Cape Bluff), 480—500 fathoms, globigerina ooze (*Alcock*).

17. EUPYRGUS SCABER, Lütken, Videnskab. Meddel. Kjöbenhavn 1857, p. 23.

After some indecision as to the correct title of these specimens I have thought it better to name them as above. In general form and appearance they all agree with *Echinosoma hispidum*, Semper, Reis. in Philipp. 1867, p. 44, but differ from *Eupyrgus hispidus*, Barrett, Ann. Mag. Nat. Hist. xx, p. 46, which Semper gives as a synonym of his *Echinosoma*, in having no sucker feet. In the Challenger Report, vol. xiv, Hol. p. 49, *Echinosoma hispidum*, Semp. is given as a synonym of *Eupyrgus scaber*, Lütken, and the *Eupyrgus* of Barrett is not mentioned.

Three specimens.

January 15th, 1888, off Cinque island, Andaman Sea, 650 fathoms (*Giles.*)

Station 107, October 23rd, 1889, Laccadive Sea, lat. 8° 23′ N., long. 75° 47′ E., 738 fathoms, green mud, bot. temp. 41·9° (*Alcock*).

Station 116, December 9th, 1890, Bay of Bengal lat. 11° 25′ 5″ N., long. 92° 47′ 6″ E. off Cinque and Rutland islands, 405 fathoms, green mud, bot. temp. 47° (*Alcock*).

18. TROCHOSTOMA ANDAMANENSE, n. sp.

This species is very closely allied to *T. antarcticum*, Théel, Chall. Rep. vol. xiv, Hol. p. 44.

Length 90 mm.

Body cylindrical and narrowed behind into a tail-like extremity. Skin rough but thin. In spirit the ground colour has become greenish-grey and the spots are more or less blood-red. The tentacles fifteen in number, are yellow and between every two there is, near the base, a blue-black triangular mark. Each tentacle has three very small digits at the free end. Mouth and anus terminal, the latter without teeth, but in one specimen with numerous fine papillæ. One Polian vesicle, one free stone canal; 2 (3 ?) lungs, not much branched; one bundle of yellow genital tubes. The radii of the calcareous ring are produced backwards as spines. Calcareous bodies not very numerous consisting of a few wide-holed plates and tower like rods which are perforated with 4 to 6

holes. Under the microscope the "chocolate spots" are seen to be composed of rust-red ovoid bodies with a concentric arrangement. They are insoluble in caustic potash.

Colour when fresh "dirty flesh-colour with closely placed deep chocolate spots; the crown (tentacles) being a sort of raw-meat-colour." (*Giles*).

Three specimens.

December 8th, 1887, S. E. of Cinque island, Andaman Sea, 500 fathoms, green mud (*Giles*).

VII.—*On an undescribed Oriental species of* Nepeta.—*By* D. Prain.

[Received 2nd March 1891;—Read 6th May 1891.]

(With Plate III).

In the Calcutta herbarium there is an example of a very distinct species of *Nepeta* which appears to be as yet undescribed. As it has been collected beyond the frontiers of India, it could not with propriety be dealt with in the paper on *Indian Labiatæ* recently read before the Society. But as it possesses rather more interest than isolated new species usually do, its position in the arrangement of Oriental species elaborated by the late M. Boissier in his work (*Flora Orientalis*, iv, 637-670) dealing with the area in which it occurs, as well as a description and figure of the specimen, are now presented.

NEPETA Linn.

Sect. I. Eunepeta. Series I. Perennes. *Sub-ser.* 2. Nuculæ tuberculatæ.

§ Macrostegiæ *Boiss., Flor. Orient.* iv, 638 (1879) *ampl.*—Verticillastra densiflora vel laxiuscula remota. Bracteæ ovatæ vel oblongæ. Calyx fauce pilosus vel glaber.

1. Calyx ore obliquus.

a. Calyx fauce pilosus.

N. Bellevii.

b. Calyx fauce glaber.

N. glomerulosa, *N. juncea.*

2. Calyx ore rectus, fauce glaber.

N. Scordotis, *N. Sibthorpii*, *N. leucostegia.*

34 *b.* Nepeta Bellevii *Prain;* robusta, laxe lanata nivea, caulibus elongatis ramosis puberulis obtuse 4-gonis superne subnudis, *foliis* majusculis sursum decrescentibus oblongo-lanceolatis crenato-dentatis